



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
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Seattle, Washington 98101

18 July 2006

MEMORANDUM

TO: Matt McClincy, Project Manager
Oregon Department of Environmental Quality

FROM: René Fuentes, Hydrogeologist
Office of Environmental Assessment

CC: Sean Sheldrake, EPA Project Manager
Eric Blischke, EPA Project Manager
Chip Humphrey, EPA Project Manager
Kristine Koch, EPA Project Manager

SUBJECT: GASCO/Siltronic Groundwater Source Evaluation, Offshore Groundwater Field Sampling Approach, dated June 2006

I have reviewed the plan as you requested, and it appears that most of the comments that had been provided in your letter dated December 19, 2005 were incorporated. The most notable exception is the suggestion of EPA Method 5035A for VOC sampling. That should still be included in the plan since many of the compounds (ie. Benzene) are highly volatile.

The draft plan should also include a statement that it is consistent with the LWG Remedial Investigation Work Plan to assure it has similar detection limits for the parameters and these new data will be comparable with other LWG data. Please include that in the final plan.

The proposal to filter the water samples is not acceptable and should be removed from the document.

In addition, I have some comments on this draft that should be included in the letter of approval and corrected in the final document.

SPECIFIC COMMENTS

1. In the Objective section, it is somewhat conflicting. It appears under Objective 3 that only the biologically active zone will be sampled in the navigation channel. It seemed in Objective 1 that the deeper zone would also be sampled in the navigation channel.
2. Page 6, top paragraph. Should indicate here and in maps (Figure 2) what parts of the Siltronic site was originally impacted by the GASCO contaminants.

3. Page 6, Section 1.2.2.2. This section should highlight the major TCE leak from the Siltronic site UST, even if not part of this study, due to the proximity of that plume and other potential effects.
4. Page 13 and 14. Twice the report has a statement such as “As benzene is also comparatively mobile, this concentration trend also suggests that groundwater is not likely the primary source of contamination to these sediments”. I do not think that this statement for benzene, in page 14 or a similar one for naphthalene in page 13 are supportable and should be removed from the report. If the data resulting from the field sampling, together with other site data can support this conclusion it can be added in the final data report later.
5. Page 16. The report has this paragraph – “It should be noted that transition zone water and sediment was not collected at some of the planned LWG locations due to the inability to access locations during construction of the in-water removal action at the Gasco site. In other cases, transition zone water samples were collected but not analyzed because of the inability to produce adequate volume for analysis with the Trident probe”. It is unclear what the purpose of that statement is. Will the new study attempt to complete what the LWG failed to complete? Please state what the plan is in relation to this statement.
6. Page 22. The statement “If good quality matching “pairs” of water/sediment samples cannot be obtained for any sampling artifact reasons, the value of subsequent data for these locations and/or depths will be considered to have greater uncertainty with respect to the conceptual site model”. What needs to be included in addition to this is how many attempts GASCO will make before the decision that good quality pairs of data cannot be obtained. Will EPA or ODEQ be consulted and request made for moving on before giving up on the site? Please give more such details.
7. Page 23. Statement is “The exact shortest possible turnaround time will be determined through negotiation with several qualified laboratories”. Not clear what this means and what impact it will have on the sampling. Please clarify what the purpose of the statement is, and how it will impact the laboratory work.
8. Page 23. Statement seems to have error (extra “will”) or it will need to be rewritten to make sense. Statement now is “In general, where substantial levels of benzene occur, sampling of additional probe locations working outward from the location of detection will occur”.
9. Page 26. It is unclear why the acceptability criteria in the first two bullets under “Sample Processing” are important. Please document the reasons.
10. Page 27. I suggest that all the cores have the bottom location sampled analyzed, rather than archived. As proposed there is high probability of an additional round of sampling or analyses to have the bottom data if the others are of high concentrations and the depth of the plume is not bounded by the samples and analyses.
11. Page 31. It is **NOT** acceptable to filter the water samples. Please remove that requirement from the plan. Sampling should be done to minimize the turbidity and thereby avoid the need to filter the samples. The statement that should be removed is the following -- “PAH samples will be filtered by the laboratory (during the first day following receipt) through a 0.45 µm glass fiber filter.
12. Page 33. It is not clear that a peristaltic pump has been considered for the ground water sampling. Ground water samples should be extracted using a peristaltic pump attached to the dedicated tubing if water head levels inside the tubing allow the use of that type of pump. The check-ball method appears to be the proposed method in this plan, but that

should only be used if the ground water is too deep to retrieve with a peristaltic pump. The concern is the agitation of the sample with the check-ball method. Please explain in more detail.